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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,108	01/26/2006	Junichi Morita	39566	9520

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PEARNE & GORDON LLP  
1801 EAST 9TH STREET  
SUITE 1200  
CLEVELAND, OH 44114-3108

EXAMINER
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SAFAIPOUR, BOBBAK

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,108	<b>Applicant(s)</b> MORITA ET AL.	
	<b>Examiner</b> Bobbak Safaipoor	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/26/06</u>                                                   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement submitted on 1/26/06 has been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shaheen et al (US Patent #7,047,036)** in view of **Cheng (US Patent Application Publication #2006/0058041 A1)**.

Consider **claim 1**, Shaheen et al disclose a mobile communication terminal capable of performing communication by a plurality of communication systems which include a first communication system (figure 1; col. 3, lines 10-15; read as UMTS) and a second communication system (figure 1; col. 3, lines 10-15; read as WLAN), a first wireless communication region in which communication can be made by the first communication system is wider than a second wireless communication region in which communication can be made by the second communication system, the mobile communication terminal comprising: a first communication unit which performs communication with a destination terminal by the first communication system (figure 1; col. 3, lines 10-15; read as UMTS); a second communication unit which performs communication with the destination terminal by the second communication system (figure 1; col. 3, lines 10-15; read as WLAN); a first determination unit which determines whether the mobile communication terminal is within the second wireless communication region

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or not during communication with the destination terminal (col. 2, lines 38-41; UE monitors the location information and when in range of the WLAN coverage, UE initiates WLAN service); and a communication changeover control unit (col. 2, lines 38-41; read as initiates a handoff) which performs control to change over between communication using the first communication unit and communication using the second communication unit, based on at least one of a determination result of the first determination unit and a determination result of the second determination unit (col. 2, lines 38-41).

Shaheen et al fail to disclose a second determination unit which determines whether the destination terminal is within the second wireless communication region or not during communication with the destination terminal.

In related art, Cheng discloses determining a geographic location of the mobile terminal (read as destination terminal), it is possible to assume that the mobile telephone is within the service area of the current serving base station. By monitoring handovers as provided by the change serving base station routine, it may be assumed with each handover that the mobile telephone is entering into the service area of the new serving base station. (figures 1 and 2, paragraphs 24-34)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Cheng into the teachings of Shaheen et al to provide position tracking and associated point of interest (POI) for a user.

Consider **claim 2**, and **as applied to claim 1 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to change over from communication using the first communication unit to communication using the second communication unit when the first determination unit concludes that the mobile communication terminal is within the second wireless communication region (Shaheen et al: col. 2, lines 38-41) during communication with the destination terminal by the first communication unit and the second determination unit concludes that the destination terminal is within the second wireless communication region (Cheng: paragraph 28).

Consider **claim 3**, and **as applied to claim 2 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to cut off a line connected to the destination terminal by the first communication unit after line connection to the destination terminal by the second communication unit is completed (Shaheen et al: figures 2 and 3; col. 2, lines 50-55; col. 3, lines 9-13, and 33-36).

Consider **claim 4**, and **as applied to claim 3 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein a resumption control unit which resumes the second communication unit when the first determination unit concludes that the mobile communication terminal is within the second wireless communication region during communication with the destination terminal by the first communication unit, and suspending the first communication unit after the line connected to the destination terminal by the first communication unit is cut off. (Shaheen et al: figures 2-3, col. 2, lines 50-55; col. 3, lines 9-13 and 33-36)

Consider **claim 5**, and **as applied to claim 1 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to change over from communication using the second communication unit to communication using the first communication unit when the first determination unit concludes that the mobile communication terminal is out of the second wireless communication region during communication with the destination terminal by the second communication unit. (Shaheen et al: figures 5-6, col. 3 lines 40 to col. 4, line 13)

Consider **claim 6**, and **as applied to claim 1 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to change over from communication using the second communication unit to communication using the first communication unit (Shaheen et al: figures 5-6, col. 3 line 40 to col. 4, line 13) when the second determination unit concludes that the destination terminal is out of the second wireless communication region during communication with the destination terminal by the second communication unit (Cheng: paragraph 28).

Consider **claim 7**, and **as applied to claim 5 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to cut off the line connected to the destination terminal by the second communication unit after the line connection to the destination terminal by the first communication unit is completed. (Shaheen et al: figures 5-6, col. 3 lines 40 to col. 4, line 13)

Consider **claim 8**, and as applied to **claim 6 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein the communication changeover control unit performs control to cut off the line connected to the destination terminal by the second communication unit after the line connection to the destination terminal by the first communication unit is completed. (Shaheen et al: figures 5-6, col. 3 lines 40 to col. 4, line 13)

Consider **claim 9**, and as applied to **claim 7 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein a resumption control unit which resumes the first communication unit when the first determination unit concludes that the mobile communication terminal is out of the second wireless communication region during communication with the destination terminal by the second communication unit, and suspending the second communication unit after the line connected to the destination terminal by the second communication is cut off. (Shaheen et al: figures 5-6, col. 3 lines 40 to col. 4, line 13)

Consider **claim 10**, and as applied to **claim 8 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention wherein a resumption control unit which resumes the first communication unit when the second determination unit concludes that the destination terminal is out of the second wireless communication region during communication with the destination terminal by the second communication unit, and suspending the second communication unit after the line connected to the destination terminal by the second communication is cut off. (Shaheen et al: figures 5-6, col. 3 lines 40 to col. 4, line 13)



Consider **claim 11**, and as applied to **claim 1** above, Shaheen et al, as modified by Cheng, disclose the claimed invention the first determination unit determines that the mobile communication terminal is within the second wireless communication region during communication with the destination terminal by the first communication unit, based on mobile communication terminal within-region notification information for notifying that the mobile communication terminal is within the second wireless communication region, the notification information being sent from communication management apparatus for managing communication between the mobile communication terminal and the destination terminal (Shaheen et al: col. 2, lines 38-41; UE monitors the location information and when in range of the WLAN coverage, UE initiates WLAN service), and wherein the second determination unit determines that the destination terminal is within the second wireless communication region during communication with the destination terminal by the first communication unit, based on destination terminal within-region notification information for notifying that the destination terminal is within the second wireless communication region, the notification information being sent from the communication management apparatus (Cheng: figures 1 and 2, paragraphs 24-34).

**Claims 12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shaheen et al (US Patent #7,047,036)** in view of **Cheng (US Patent Application Publication #2006/0058041 A1)** and in further view of **Shiraga (US Patent Application Publication #2004/0196807 A1)**.

Consider **claim 12**, and as applied to **claim 1** above, Shaheen et al, as modified by Cheng, disclose the claimed invention except for a radio wave intensity detection unit which detects intensity of a radio wave received by the second communication unit during communication with the destination terminal through the second communication unit, wherein the first determination unit determines whether the mobile communication terminal is within the second wireless communication region or not during communication with the destination terminal by the second communication unit, based on the radio wave intensity detected by the radio wave intensity detection unit.

In related art, Shiraga discloses a communication section that receives information of radio wave intensity. The positional information generating section generates the positional information of each terminal apparatus depending on the radio wave intensity of each first terminal apparatus. In general it is determined that each first terminal apparatus is located in the zone of a wireless communication base station receiving the most intense radio waves. (Shiraga: paragraph 83)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Shiraga into the teachings of Shaheen et al and Cheng to determine if the mobile communication terminal is within the second wireless communication region depending if the radio wave intensity reaches or exceeds a threshold value.

Consider **claim 13**, and as applied to **claim 1** above, Shaheen et al, as modified by Cheng and Shiraga, disclose the claimed invention wherein the second determination unit

concludes that the destination terminal is out of the second wireless communication region during communication with the destination terminal by the second communication unit, based on destination terminal out-of-region notification information for notifying that the destination terminal is out of the second wireless communication region, the notification information being sent from communication management apparatus for managing communication between the mobile communication terminal and the destination terminal. (Cheng: figures 1 and 2, paragraphs 24-34)

**Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shaheen et al (US Patent #7,047,036)** in view of **Cheng (US Patent Application Publication #2006/0058041 A1)** and in further view of **Sagi et al (US Patent Application Publication #2004/0264410 A1)**.

Consider **claim 14**, and as applied to **claim 1** above, Shaheen et al, as modified by Cheng, disclose the claimed invention except for wherein the second communication system is a communication system based on SIP.

In related art, Sagi et al disclose a communication system based on SIP. (abstract)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sagi et al into the teachings of Shaheen et al, as modified by Cheng, to include handoffs between two separate networks, wherein one communication is based on SIP.

**Claims 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cheng (US Patent Application Publication #2006/0058041 A1)** in view of **Shaheen et al (US Patent #7,047,036)**.

Consider **claim 15**, Cheng discloses a communication management apparatus for managing communication between two mobile communication terminals (paragraphs 24, read as base station and mobile telephone) performing the communication by a plurality of communication systems (figure 2, paragraph 27; read as base station 3000 and base station 4000), wherein the two mobile communication terminals are set as a source terminal (paragraph 24; read as base station) and a destination terminal (paragraph 24; read as mobile telephone) respectively, wherein a position information detection unit which detects position information of the source terminal and destination terminal (paragraph 28; read as determining a geographic location of the mobile terminal is within the serving base station); and a notification information transmission unit which transmits the source terminal notification information for notifying a determination result of the within-region determination unit (paragraphs 24-34; Providing a RSSI monitor module that tracks the running average RSSIs of a predetermined number of base stations within the receiving range of the mobile telephone.).

Cheng fails to disclose that the plurality of communication systems include a first communication system and a second communication system, a first wireless communication region in which communication can be made by the first communication system is wider than a second wireless communication region in which communication can be made by the second communication system, and wherein the communication management apparatus comprises: a

within-region determination unit which determines whether the source terminal and the destination terminal are within the second wireless communication region or not during communication between the source terminal and the destination terminal, based on region information of the second wireless communication region and the position information.

In related art, Shaheen et al disclose a user equipment (UE) that handoffs from either a wireless local area network (WLAN) to a universal mobile telecommunications system (UMTS) or from a UMTS to a WLAN. Handoffs may be initiated by the UE, based upon user preference, signal quality, comparison of location coordinates of the UE and the system to be switched to or signal quality. (abstract)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Shaheen et al into the teachings of Cheng to provide an automatic handoff process.

Consider **claim 16**, and as applied to **claim 15** above, Cheng, as modified by Shaheen et al, disclose the claimed invention wherein the notification information contains source terminal within-region notification information for notifying that the source terminal is within the second wireless communication region during communication between the source terminal and the destination terminal by the first communication system, and destination terminal within-region notification information for notifying that the destination terminal is within the second wireless communication region during communication between the source terminal and the destination terminal by the first communication system. (Cheng: figures 1 and 2, paragraphs 24-34)

Consider **claim 17**, and as applied to **claim 15 above**, Cheng, as modified by Shaheen et al, disclose the claimed invention wherein the notification information contains destination terminal out-of-region notification information for notifying that the destination terminal is out of the second wireless communication region during communication between the source terminal and the destination terminal by the second communication system. (Cheng: figures 1 and 2, paragraphs 24-34)

**Claims 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Cheng (US Patent Application Publication #2006/0058041 A1)** in view of **Shaheen et al (US Patent #7,047,036)** and in further view of **Sagi et al (US Patent Application Publication #2004/0264410 A1)**.

Consider **claim 18**, and as applied to **claim 15 above**, Shaheen et al, as modified by Cheng, disclose the claimed invention except for wherein the second communication system is a communication system based on SIP.

In related art, Sagi et al disclose a communication system based on SIP. (abstract)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sagi et al into the teachings of Shaheen et al, as modified by Cheng, to include handoffs between two separate networks, wherein one communication is based on SIP.

*Conclusion*

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Bobbak Safaipour*  
B.S./bs

February 12, 2007

EDAN ORGAD  
PRIMARY PATENT EXAMINER

*Edan Orgad 2/14/07*